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 September 9, 2010

Township Supervisor
 12050 Old Belding Road
 Belding, MI 48809-9318

Grattan Township and Grattan/Vergennes Sewer Systems
August 2010 Monthly Operations Report

Dear Frank,

Attached please find the Grattan Township Wastewater Utilities Report and the Preventative/Corrective Maintenance Report for August 2010.

In regards to capital improvements, we are researching the replacement options for the flow meter at the Grattan WWTP as this would accomplish one of Leslie Sorenson's evaluation requests. We are also in process of obtaining a 5.7HP Flygt grinder and having the volute machined to fit the universal mounts in either RL-PS #15 and/or BPI-PS #6. The pump will be temporarily placed in both stations to calculate the pump draw down for permanent installation determination. The table below shows these items:

Capital Improvement Task	Status	Budgeted Amount	Completed Amount
New Pump & Base Mounts at BCL-PS #1	Both Pump Bases Require Replacement – Tentative scheduling for the Spring	~\$6,000	
Replacement of the Grattan WWTF Flowmeter	Researching replacement costs	~\$2,000	
Replacing Hydromatic Pump #2 at BPI-PS #6	5.7HP Flygt Grinder Pump Installed; Awaiting Seal Fail/OT Wiring	~\$6,000 (Not on AOF)	
Replacing Hydromatic Pump #2 at RL-PS #15	5.7HP Flygt Grinder Pump Installed; Awaiting Seal Fail/OT Wiring	~\$6,000 (Not on AOF)	

As always I would be happy to elaborate on any of the submitted information or provide any additional information that would assist the township board. Please do not hesitate in contacting me.

Sincerely,



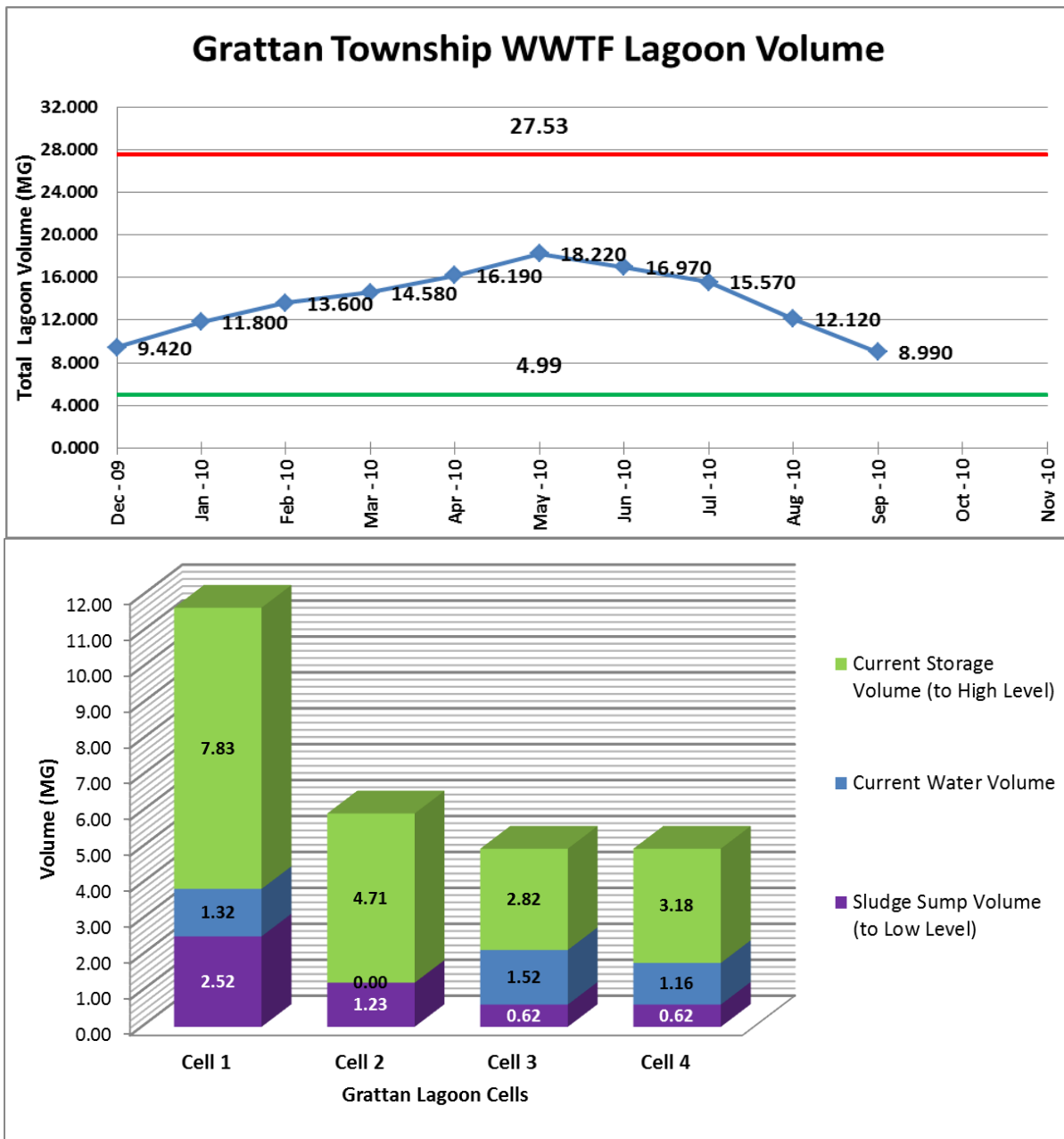
John Rydbeck
 (616) 890-5768
 Infrastructure Alternatives - Grattan Township Sewer System Operations Manger

Attachments: August 2010 Preventative/Corrective Maintenance Report
 Purchase Order Request for replacement BCL-PS #17 Pump #1

Executive Summary:

A total of 4.118MG has been discharged through the irrigation system at the Grattan WWTF. The lagoons had a decrease of 3.130MG over the same period. The wastewater influent flow for the month was 0.916MG, with an additional 0.339MG from rainfall¹ (calculated from 1.74” rainfall over ~280,000ft² lagoon surface areas). With these variables we are able to estimate the total evaporation for the month using the simple equation below:

$$-3.130\text{MG (Tot. Lag. Dcr.)} = 0.916\text{MG (Inf.)} + 0.339\text{MG (Rain)} - 4.118\text{MG (Irr.)} - 0.267\text{MG (Evap.)}$$

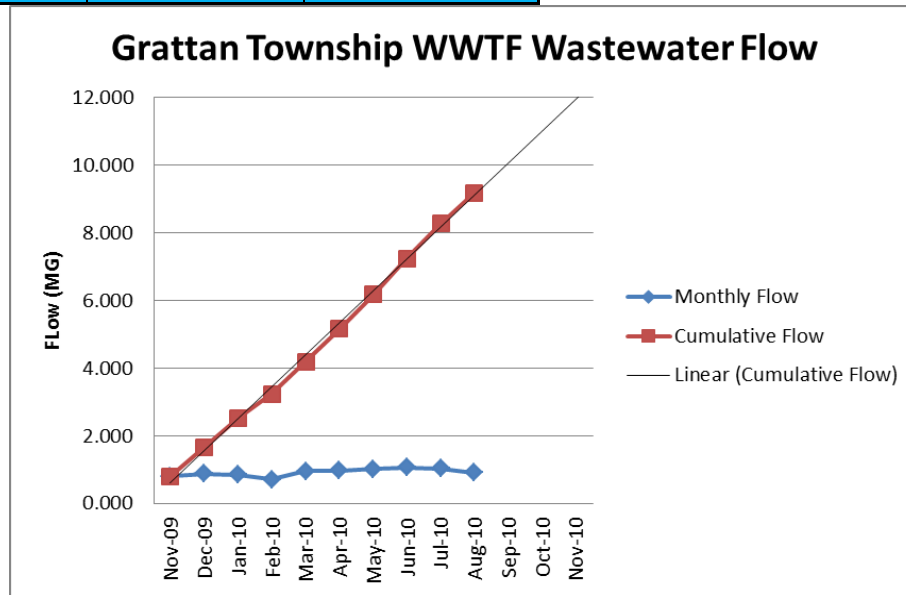


¹ Rainfall data taken from the National Weather Service Kent County Airport Station

In addition, the following data shows the wastewater flow into the lagoons:

Grattan Township WWTF Wastewater Flow		
Month/Year	Monthly Flow	Cumulative Flow
Nov-09	0.798	0.798
Dec-09	0.872	1.670
Jan-10	0.853	2.523
Feb-10	0.713	3.236
Mar-10	0.955	4.191
Apr-10	0.964	5.155
May-10	1.023	6.178
Jun-10	1.060	7.238
Jul-10	1.031	8.269
Aug-10	0.916	9.185
Sep-10		
Oct-10		

	2009 Irrigation Season
	2010 Storage Season
	2010 Irrigation Season



Emergency Call-Outs:

- August 7, 2010 11:00 a.m. Grattan WWTP HIGH PRESSURE: Received High Pressure alarm from the Sensaphone dialer. Arrived on-site and the plant was ran in hand. The following Monday with additional staff it was determined that Gun 6 had a bad solenoid. It was replaced with a new solenoid from the spare parts inventory.

General Operation Information / Housekeeping:

- The berms on the lagoons are being trimmed with a weed-whipper and brush-hog with the addition of vegetation control applications.

Preventative Maintenance:

- The preventative maintenance tasks have been completed for August 2010 and summarized in the attached report.

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Corrective Action / Significant Tasks Completed:

- Tuesday August 17, 2010 Grattan WWTP: IAI staff removed a corroded gate that prevented water flow through the structure between Cells 2 and 4. This allowed for the proper transfer of wastewater to the discharge lagoon without the need for a pump to facilitate the movement.

Pending Projects:

- Chemical treatments are being investigated for duckweed control on the lagoons.

Grattan/Vergennes Township Wastewater System

Executive Summary:

The WWTF drip-irrigated 6.292MG for the month of August.

Emergency Call-Outs:

- Saturday August 14, 2010 @ 10:00 p.m. – 12:00 a.m. ML-PS #9 LOW LEVEL: Received a call from Cunningham Communication that a resident called about the alarm light being on. Arrived on site and through troubleshooting found the pump off was bad. This caused the low level float to act as the pump off float. The float was replaced.
- Tuesday August 17, 2010 @ 1:30 a.m.- 3:00 a.m. RL-PS #15 HIGH LEVEL: Received high level alarm from the Mission Dialer. The pump alternating sequencer has already been turned “off” (i.e. both pumps turning on at the pump-on level) and the station continues to have difficulty in maintaining a proper level in the pump station during normal flows.
- Friday August 20, 2010 @ 1:45 a.m.- 2:15 a.m. RL-PS #15 HIGH LEVEL: Received high level alarm from the Mission Dialer. The pump alternating sequencer has already been turned “off” (i.e. both pumps turning on at the pump-on level) and the station continues to have difficulty in maintaining a proper level in the pump station during normal flows.
- Monday August 30, 2010 @ 5:45 p.m. – 6:15 p.m. ML-PS #11 POWER OUTAGE: Received AC power fault alarm from the Mission Dialer. The short term power outage was monitored via the mission website.

General Operation Information / Housekeeping:

- The berms on the lagoons are being trimmed with a weed-whipper and brush-hog with the addition of vegetation control applications.

Preventative Maintenance:

- The preventative maintenance tasks have been completed for August 2010 and summarized in the attached report.

Corrective Action / Significant Tasks Completed:

- Thursday August 5, 2010 BCL-PS #17 Pump #1: Pump #1 was pulled to have new cutters installed. After installing the cutters the still would not perform. The pump was pulled and brought to Fixall Electric for repair on August 6, 2010. It was determined by Fixall that the stator and rotor are both open and needs new bearings as well as seals and oil. The attached purchase order recommends the pump to be replaced with a new It is recommend the pump be replaced instead of repaired.

Pending Projects:

- Awaiting the arrival of the used 50kw Kohler portable generator.